

REMARKS

The Non Final Office Action mailed September 23, 2011 has been reviewed and carefully considered. Reconsideration of the above-identified application, as herein amended and in view of the following remarks, is respectfully requested.

Claims 1, 3-9, 11-13 and 15-20 are pending in this application. Claims 1, 8 and 13 have been amended. Claims 2, 10 and 14 have been cancelled without prejudice. New claims 19 and 20 have been added. New FIGS. 5 and 6 are enclosed herewith. No new matter has been added by the amendments.

EXTENSION OF TIME

A Petition for a Two Month Extension of Time under 37 C.F.R. §1.136(a) is enclosed herewith along with payment of \$280.00 to cover the small entity fee as per 37 C.F.R. §1.17(a)(2).

SPECIFICATION:

Applicant has amended the specification where indicated to include the newly added FIGS. 5 and 6.

§112 REJECTIONS

Claims 1 and 3-18 were rejected under 35 U.S.C. 112, 2nd paragraph as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Applicants will refer to the specification by both page/line numbers of the specification as filed, and paragraphs of the published application 2010/0043252.

In Claim 1, the phrase “upper surface is visible from the outside” has now been amended to recite: “said upper surface is configured to be in direct contact with the user’s heel.” This is supported by the specification as filed, e.g., page 3, line 26 to page 4, line 3 (paragraph [0013]); and page 5, lines 1-4 (paragraph [0021]).

Claim 8 has been amended as shown above, namely, to recite: “...wherein said semi-rigid support base ~~continuously~~ extends ~~even at~~ across said front portion.” The amendment is supported by the specification, e.g., page 6, lines 1-2 (paragraph [0026]).

Claim 10 has been cancelled without prejudice. It is noted that its features have now been incorporated into Claim 1, and are asserted to be clearly described and shown in the specification as filed, e.g., as element 8 in FIGS. 1-4 and page 6, lines 4-12 (paragraph [0027]).

With regards to Claim 11, Applicant has now added new FIGS. 5 and 6 to show the claimed appendix.

In Claim 13, Applicant has now deleted the term “special.” Applicant further notes that Claim 13 has been amended to delete the phrase “visible from the outside” as per the similar amendment made to Claim 1.

Accordingly, withdrawal of the 112 rejections is respectfully requested.

DRAWINGS:

With regards to the drawing objections, please see the attached new FIGS. 5 and 6, which depict the claimed feature of a ‘one-piece appendage’ in Claim 11. It is respectfully

believed that no new matter has been added. Withdrawal of the objection to the drawings is respectfully requested.

§103 REJECTIONS

Claims 1, 4, 5 and 7-18 were rejected under 35 U.S.C. §103(a) as being unpatentable over Bain (2004425) in view of Hardt (6598319).

Claims 1, 3, 5, 7 and 10-18 were rejected under 35 U.S.C. §103(a) as being unpatentable over Jones (2862313) in view of Hardt (6598319).

Claims 1, 3, 5-7 and 10-18 were rejected under 35 U.S.C. §103(a) as being unpatentable over Silver (2083581) in view of Hardt (6598319).

To support an obviousness rejection, MPEP §2143.03 requires “all words of a claim to be considered” and MPEP § 2141.02 requires consideration of the “[claimed] invention and prior art as a whole.” Further, the Board of Patent Appeal and Interferences recently confirmed that a proper, post-KSR obviousness determination still requires the Office make “a searching comparison of the claimed invention – including all its limitations – with the teaching of the prior art.” *In re Wada and Murphy*, Appeal 2007-3733, citing *In re Ochiai*, 71 F.3d 1565, 1572 (Fed. Cir. 1995) and *CFMT v. Yieldup Intern. Corp.*, 349 F.3d 1333, 1342 (Fed. Cir. 2003). In sum, it remains well-settled law that an obviousness rejection requires at least a suggestion of *all* of the claim elements.

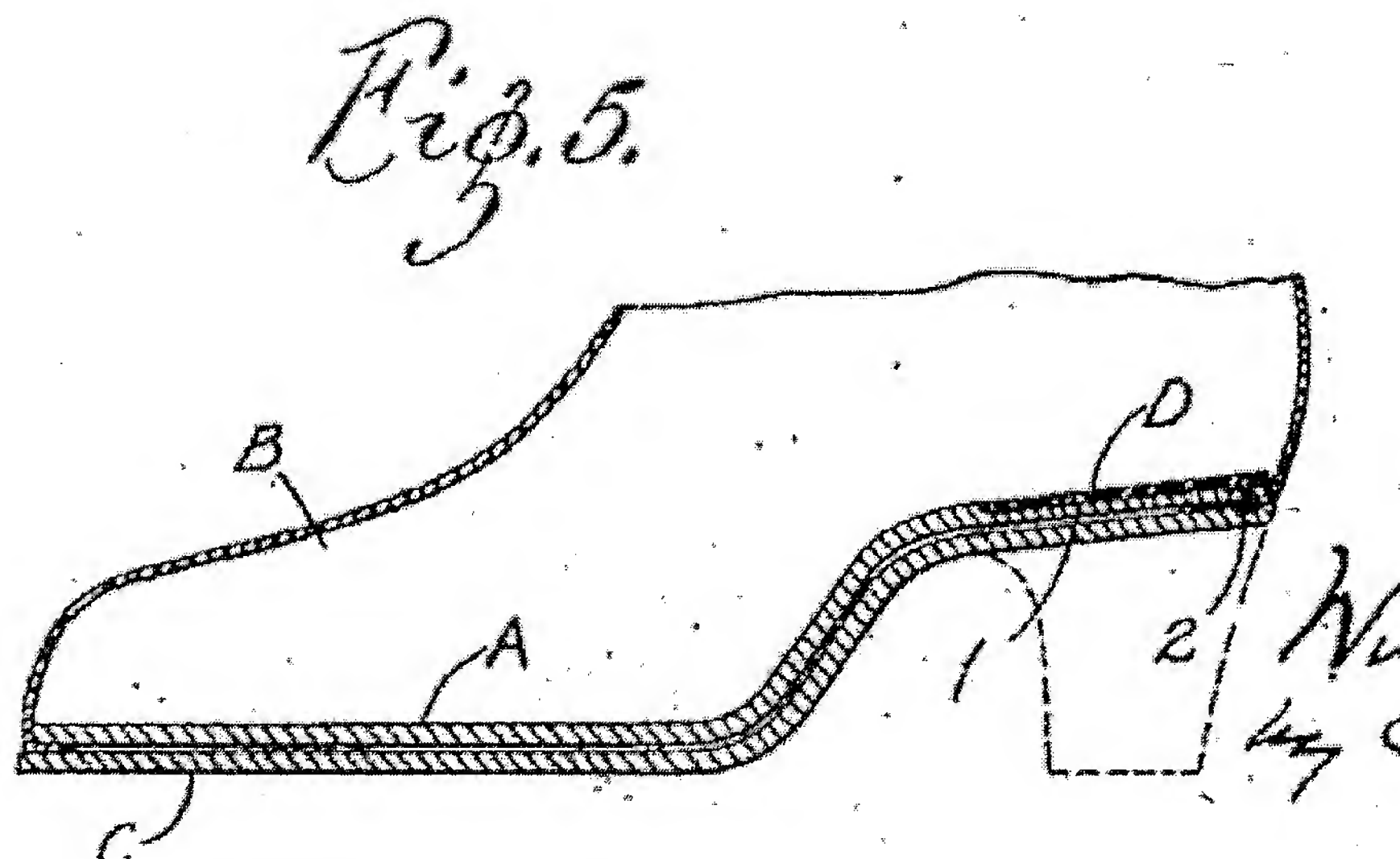
While Applicant disagrees with the rejections, in the interest of furthering prosecution, Applicant has amended Claim 1 to recite, *inter alia*, as follows:

“A composite footwear insole comprising a front portion for interacting with the user’s foot at the metatarsal region and at least partly at the plantar arch, and a

rear portion for interacting with the foot over the heel region, said rear portion having at least one layer of gel material whose plan size is substantially equal to that of said rear portion and being smaller than the plan size of the entire insole to uniformly support the heel and absorb stresses acting thereon, said gel ~~layer~~ material having an upper surface for interacting with the heel that has no discontinuities to further increase comfort, wherein said gel ~~layer~~ material is made of one piece and is connected to the front portion by a substantially continuous connecting junction, and said upper surface is configured to be in direct contact with the user's heel, visible from the outside."

This amendment is supported by the specification as filed, e.g., as element 8 in FIGS. 1-4 and page 6, lines 4-12 (paragraph [0027]).

Bain discloses an insole A, an outsole C and a cushioning pad D of rubber or other yielding material seated on the heel portion of the insole substantially flush with the inner face thereof, as visible below. The cushioning pad D is cemented or otherwise held in its seat. The following depicts FIG. 5 of Bain:



However, Applicants respectfully assert that Bain fails to disclose or suggest several aspects of the presently claimed invention.

Firstly, Bain fails to disclose or suggest at least a rear portion having at least one layer of gel material whose plan size is substantially equal to that of said rear portion ...to uniformly support the heel and absorb stresses acting thereon, said gel material having an upper surface for interacting with the heel that has no discontinuities to further increase comfort, wherein said gel material is made of one piece and is connected to the front portion by a substantially continuous connecting junction, essentially as claimed in Claim 1.

Bain simply teaches wherein a cushioning pad seated on a heel portion is made of rubber. Using rubber, as taught by Bain, facilitates the realization of a pad of the same dimension of the heel region, since rubber is a solid material which is substantially hard and compact. Bain does not teach or contemplate using a semi-solid material, such as a gel material as presently claimed. Indeed, providing an insole incorporating a gel material in the heel region in the manner as presently claimed is not easily done.

Moreover, the cushioning pad of Bain is cemented on the insole. Contrast this with the insole of the present invention, which provides a gel material in the heel region which is not cemented on the insole. In Bain, the fact that a cement is used to join these two parts, does not allow to Bain to have a substantially continuous connecting junction that connects the gel layer to the front portion, essentially as claimed in claim 1. Instead, the interposition of a third material - as the cement - between the cushioning pad and the insole, in fact, created a discontinuity between them that therefore, actually teaches away from the presently claimed invention.

Applicants further note that Bain discloses that its cushioning pad D can be removed or replaced without disturbing the other parts of the shoe; the upper of the shoe of Bain is secured to the heel portion of the insole by means of tacks: the pad serves to prevent them from coming in contact with the heel. Thus, the pad in Bain is used for protect the foot from tacks of the shoes and is therefore focused on the shoes construction. In contrast, in the present invention the gel layer is used to uniformly distribute stress over the foot and in particularly over areas which are subjected to higher pressure, as indicated at paragraph 10 of the published version of the present application.

The fact that the upper is connected to the heel portion by tacks in Bain, and that the pad is used to prevent them from contacting the heel, means that the pad is substantially rigid. Such rigidity is necessary, otherwise, the pressure of the heel from the user's weight would enable the user to feel the tacks and cause discomfort. This is in contrast to the present invention, in which between the gel layer and the front portion there is only a continuous connection portion. In this way, the gel material can be flexible and soft, assuring a real comfort to the user.

Furthermore, Bain fails to disclose or suggest at least co-molding a front portion with a semi-rigid support base, essentially as claimed in amended Claim 13. Bain is silent with regards to any molding process whatsoever.

It is respectfully asserted that Hardt fails to cure the deficiencies of Bain.

Hardt discloses an insole 20 of a sheet material 22 of polymeric foam material having two openings therein corresponding to a portion of the heel and a portion of the arch, filled with a polymeric gel composition, as visible below:

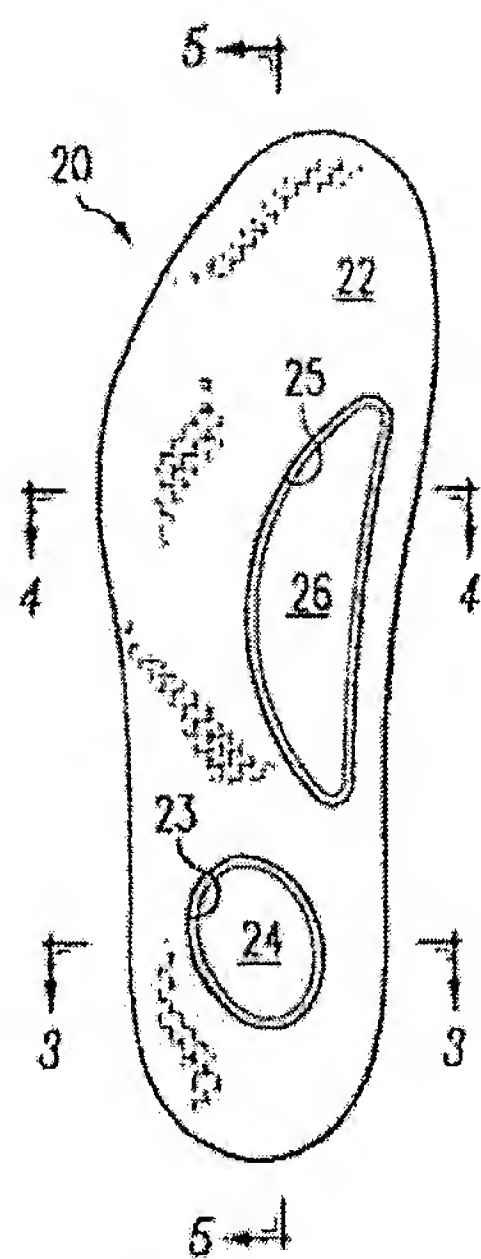


FIG. 1

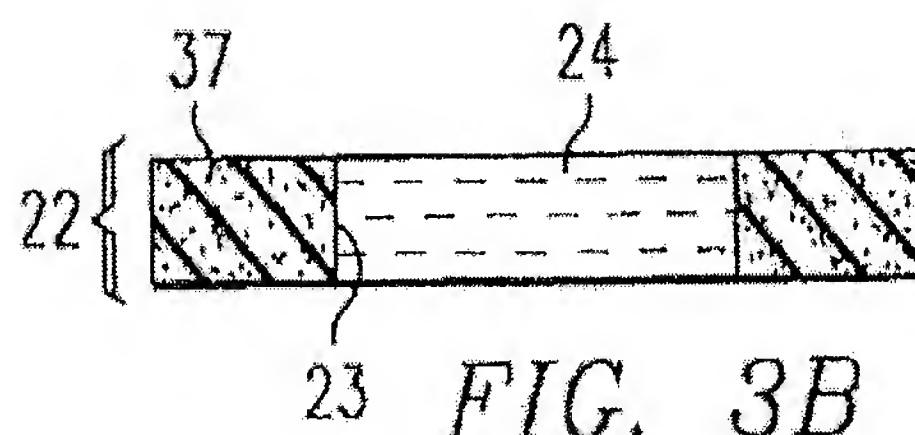


FIG. 3B

The heel opening 23 receives a heel plug 24. The gel material is placed (poured) in the opening 23. The mixture fills the opening such that when it is reacted, it fills the opening. The mixture will be liquid and flowable.

However, Hardt differs from the present invention in that its insole has an opening, at the heel portion, surrounded by insole material. Thus, the rear portion of Hardt does not have a gel material whose plan size is substantially equal to that of the rear portion.

The Examiner argues that it would be obvious to use the gel and the transpiring materials as taught by Hardt for the insole of Bain. Applicant respectfully disagrees. It is not possible to combine or use the gel of Hardt to realize a cushioning pad as that shown of Bain, since the gel material of Hardt cannot protect the user from tacks. If the gel material were to contact the tacks it would likely rupture, and moreover, since it is not as rigid as rubber, it does not prevent the user from feeling the tacks. Therefore, one of skill

in the art would not combine the gel of Hardt with the cushioning pad of Bain. Even assuming *arguendo*, that they could be combined, such combination would at most only suggest to create a cavity in the insole of Bain and to fill it with the gel of Hardt. However, again, the protection conferred by the pad of Bain would then not be obtained. Thus, it is not obvious to realize a **gel** material of one piece whose plan size is equal to the rear portion of the heel, essentially as presently claimed.

While Hardt mentions molding the polymeric foam material around the plugs (Col. 5, lines 13-15), and wherein an arch cushion 60 can be molded with the insole (Col. 6, lines 58-61), Hardt does not disclose where a gel layer is co-molded with a front portion of an insole and a semi-rigid support base (as in amended Claim 13), and also does not disclose a rear portion made of one piece, wherein a front and rear portion are made separately and later joined by a substantially continuous connecting junction (as in new claim 20).

Hardt fails to disclose or suggest at least a rear portion having at least one layer of gel material whose plan size is substantially equal to that of said rear portion ...to uniformly support the heel and absorb stresses acting thereon, said gel material having an upper surface for interacting with the heel that has no discontinuities to further increase comfort, wherein said gel material is made of one piece and is connected to the front portion by a substantially continuous connecting junction, essentially as claimed in Claim 1.

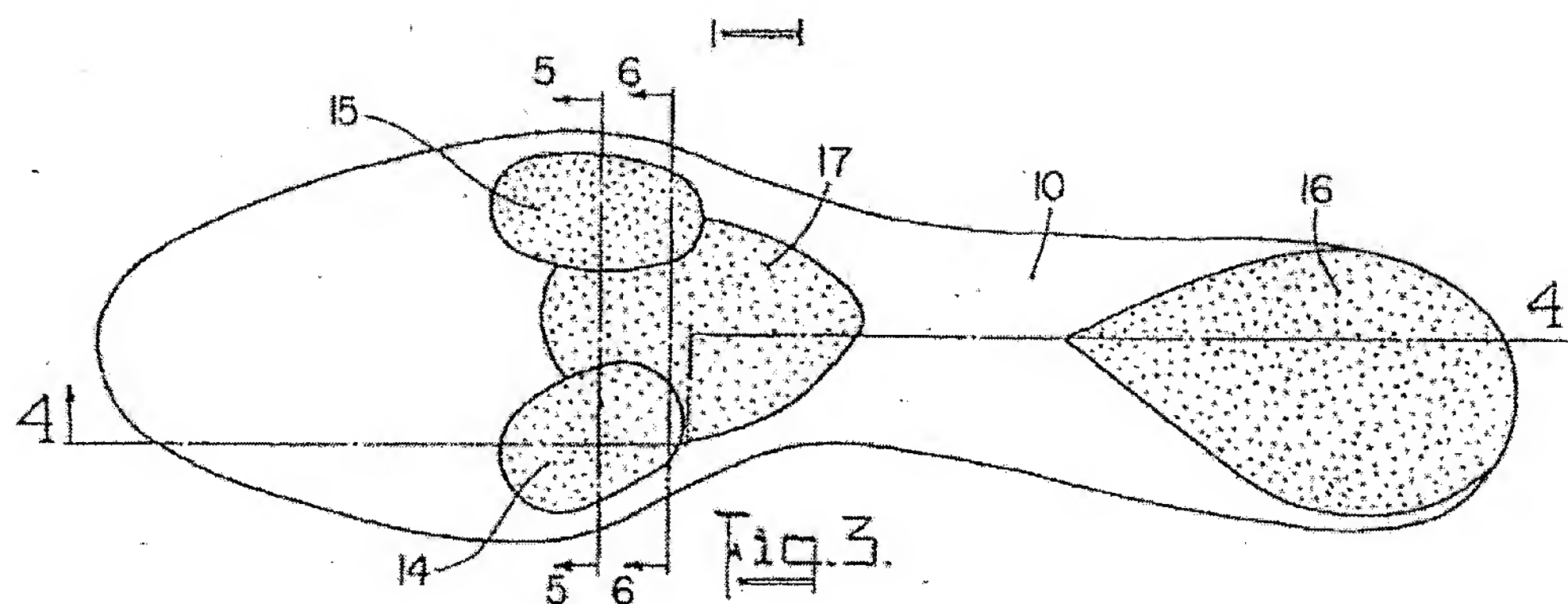
Furthermore, Hardt fails to disclose or suggest at least forming a rear portion, integral with the front portion, and designed to interact with the heel, forming a gel layer, and molding it in a mold, substantially over the whole plan size of said rear portion and

less than the plan size of the entire insole, wherein said gel layer is co-molded with said front portion and a semi-rigid support base, essentially as claimed in Claim 13. At most, Hardt only suggests to fill an opening in the insole with a liquid gel mixture; however, Hardt's disclosed opening does not having a plan size equal to the rear portion of the insole.

With regards to claims 5, 17 and 18, it is respectfully asserted that Hardt does not teach or suggest use of a varnish. Instead, Hardt teaches using a die with a diamond or other textured pattern to reduce tackiness of the gel. No mention or suggestion is made in Hardt to use a varnish, but only to adapt the die with a textured pattern. Therefore, it is not obvious for a skilled person in the art to use a varnish, as Hardt does not suggest to use an anti-tackiness layer over the gel but rather only to modify the pattern of the die to reduce its tackiness. It is noted that the technique suggested by Hardt is very expensive, as it requires to have a particular worked die for this matter.

It is respectfully submitted that neither Jones nor Silver cure the deficiencies of Hardt.

Jones discloses an insole 10 made of leather or other suitable flexible non resilient material; in the heel area, there is a tapered cushion 16 of soft spongy rubber cemented to the upper side, Also metatarsal cushion elements are provided:



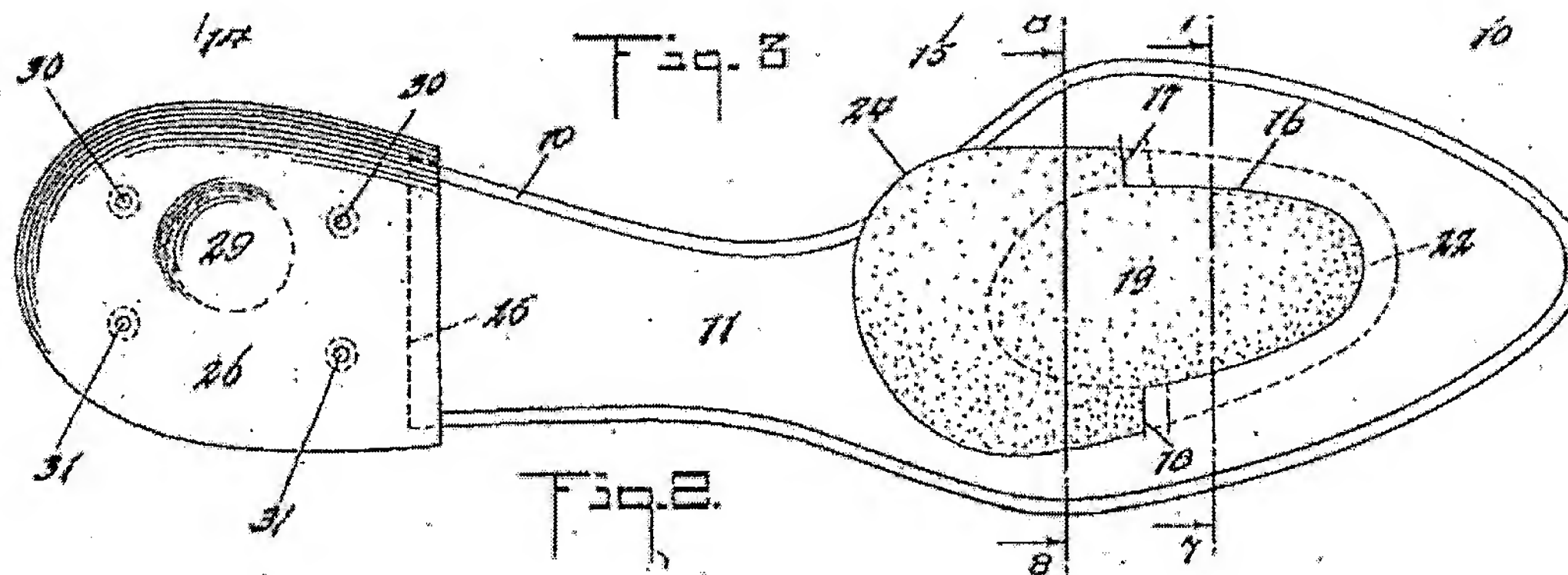
Jones teaches a heel cushion 16 which is cemented to the upper side of the insole and does not mention molding whatsoever. The tapered cushion 16 of Jones differs from the present invention because it, being tapered, has not a plan size substantially equal to the rear portion of the heel. Moreover, the cushion 16 of Jones does not have an upper surface without discontinuities, as claimed in the present invention. In fact, since it is cemented to the upper side, the cushioning element of Jones cannot possibly assure an upper surface without discontinuities nor can it provide a substantially continuous connecting portion with the front portion, as presently claimed.

Also, the cushioning bodies of Jones are comprised of the rubber sponge which, unlike a gel material, does not and cannot exhibit a three-dimensional (3D) behavior when subjected to a pressure load. Therefore, it does not uniformly distribute stresses as the gel layer of the present invention does.

The Examiner argues that it would be obvious to use gel as taught by Hardt for the cushioning element of Jones. However, besides our comments already indicated above for Hardt, it is not possible to realize an insert, that is placed to the top of the insole, as contemplated by Jones, with the gel material of Hardt, because, as explained above, it is indicated to be poured in a container or a cavity wherein it can react and

assume the shape of the latter. Hardt fails to disclose or suggest at least a raised tapered cushioning element as Jones, and their combination cannot produce or contemplate the present invention since Jones cannot assure an upper surface without discontinuities.

With regards to Silver, Silver discloses an inner sole 11 with a metatarsal pad 19 and a heel saddle 26 of rubber or other resilient material:



As visible from the figures, Silver does not disclose a gel material with an upper surface without discontinuities nor a substantially continuous connecting portion with the front portion. In fact, as visible, Silver does not present a continuous junction but an important step between the saddle and the front position.

Moreover, the material of Silver is harder than the gel layer of the present invention. It is explained by the depression 29 of Silver that is directly beneath the heel bone a. It is not possible to obtain such a structure with the gel layer of the present invention, as it is formed in the mold and, being a gel, when poured it forms a substantially planar upper surface. It cannot realize a depressed structure as that described by Silver. The difference in structure reflects a difference in disclosed materials.

While the Examiner again argues that it would be obvious to use gel as taught

by Hardt for the heel saddle of Silver. However, Applicants respectfully disagree for at least the reasons explained above. It is not possible to use the gel of Hardt to realize the raised and depressed saddle of Silver. Further, while Silver mentions that a heel saddle 26 is a molded structure of rubber, it is not co-molded with a front portion and a semi-rigid support base.

Accordingly, Jones and/or Silver, either individually or in any combination, fail to disclose or suggest at least a rear portion having at least one layer of gel material whose plan size is substantially equal to that of said rear portion ...to uniformly support the heel and absorb stresses acting thereon, said gel material having an upper surface for interacting with the heel that has no discontinuities to further increase comfort, wherein said gel material is made of one piece and is connected to the front portion by a substantially continuous connecting junction, essentially as claimed in Claim 1.

Furthermore, Jones and/or Silver, either individually or in any combination, fail to disclose or suggest at least forming a rear portion, integral with the front portion, and designed to interact with the heel, forming a gel layer, and molding it in a mold, substantially over the whole plan size of said rear portion and less than the plan size of the entire insole, wherein said gel layer is co-molded with said front portion and a semi-rigid support base, essentially as claimed in Claim 13.

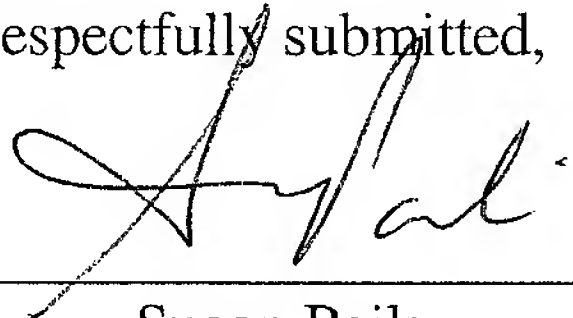
Accordingly, claims 1 and 13 are believed to be patentable and nonobvious over the cited references for at least the reasons stated above. Dependent claims 3-9, 11-12 and 15-20 are believed to be patentable and nonobvious for at least the reasons given for Claims 1 and 13.

For at least all of the above reasons, withdrawal of all the rejections and allowance of pending claims on the merits is respectfully requested.

A Petition for a Two Month Extension of Time under 37 C.F.R. §1.136(a) is enclosed herewith along with payment of \$280.00 to cover the small entity fee as per 37 C.F.R. §1.17(a)(2).

It is believed that no additional fees or charges are currently due. However, in the event that any additional fees or charges are required at this time in connection with the application, they may be charged to applicant's representatives Deposit Account No. 50-1433.

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